

WHAT IS CLAIMED AS NEW AND DESIRED TO BE SECURED BY LETTERS  
PATENT OF THE UNITED STATES IS:

1. A process for determining a composition of a dye product for dyeing keratin fibers, comprising the steps of:

entering at least one item of data representative of a target coloration;

determining, from a database, a dye product based on said target coloration; and

displaying the composition of said dye product, identifying at least one dye component to produce said dye product, and further identifying a proportion for said at least one dye component.

2. The process of Claim 1, wherein said displaying identifies a plurality of dye components to produce said dye product and further identifies relative proportions for said dye components.

3. The process of Claim 1, wherein said determining step comprises determining a dye product for obtaining the target coloration.

4. The process of Claim 1, wherein said determining step comprises determining a dye product for obtaining a theoretical coloration that differs from the target coloration by not more than a predetermined theoretical value.

5. The process of Claim 1, wherein said determining step comprises determining a predetermined number of dye products for obtaining theoretical colorations that are close to the target coloration, and wherein said displaying step includes displaying at least one of said dye products.

6. The process of Claim 4, wherein said displaying step comprises displaying a value representative of a difference between the theoretical coloration obtained with the dye product and the target coloration.

7. The process of Claim 4, wherein said displaying step comprises displaying a colored graph component whose coloration is the theoretical coloration obtained with the dye product.

8. The process of Claim 4, wherein said determining step comprises determining a plurality of dye products based on said target coloration.

9. The process of Claim 8, wherein said displaying step comprises displaying the dye products arranged in order of proximity between the theoretical coloration and the target coloration.

10. The process of Claim 1, wherein the determining step comprises selecting a dye product identified in the database.
11. The process of Claim 1, wherein the determining step comprises determining the composition of said dye product by numerical calculation.
12. The process of Claim 1, wherein said at least one dye component comprises an oxidation base.
13. The process of Claim 12, wherein said at least one dye component further comprises an oxidation coupler.
14. The process of Claim 1, wherein said at least one dye component comprises a direct dye.
15. The process of Claim 1, wherein said keratin fibers are human hairs.
16. The process of Claim 1, further comprising a step of entering at least one characteristic of said keratin fibers.
17. The process of Claim 16, wherein said step of entering said at least one characteristic comprises entering at least one item of data representative of a real color of the keratin fibers.
18. The process of Claim 17, further comprising a step of identifying a subset of dye components chosen from all dye components in the database, and wherein said determining step comprises determining dye products formed from one or more dye components of the said subset.
19. A process for preparing a dye product, comprising the steps of:  
determining a proportion for at least one dye component of the dye product using the process of Claim 1; and  
preparing said dye product by incorporating said at least one dye component determined by said determining step, in the proportion determined by said determining step.
20. A database for determining a composition of a dye product for dyeing keratin fibers, comprising:
  - a first set of data identifying a plurality of dye components for making a plurality of dye products; and
  - a second set of data identifying concentrations of the dye components, and colors obtained when said dye products made with said dye components are applied to said keratin fibers.
21. The database of Claim 20, further comprising a third set of data representative of economic characteristics relating to at least one of said dye products.

22. The database of Claim 20, further comprising a third set of data representative of regulatory characteristics relating to at least one of the said dye products.

23. A process for compiling the database of Claim 20, comprising the steps of:  
recording said first set of data; and  
recording said second set of data.

24. The process of Claim 23, further comprising a step of updating the database by recording the second set of data relating to at least one new dye product.

25. A system for determining a composition of a dye product for dyeing keratin fibers, comprising:

means for entering at least one set of data representative of a target coloration;  
calculation means for determining, from a database, the dye product based on said target coloration; and

means for displaying the composition for said dye product, identifying at least one dye component to produce said dye product, and further identifying a proportion of said at least one dye component.

26. The system of Claim 25, wherein said calculation means comprises means for determining at least one dye product for obtaining the target coloration.

27. The system of Claim 25, wherein said calculation means comprises means for determining at least one dye product for obtaining a theoretical coloration that differs from the target coloration by not more than a predetermined theoretical value.

28. The system of Claim 25, wherein said calculation means comprises means for determining a predetermined number of dye products for obtaining theoretical colorations that are close to the target coloration, and wherein said displaying means comprises a means for displaying at least one of said dye products.

29. The system of Claim 25, wherein the database is remotely located relative to the display means, data between said database and said display means being transmitted over a network.

30. The system of Claim 29, wherein said calculation means is remotely located relative to the display means.

31. The system of Claim 29, wherein said database is remotely located relative to the entering means.

32. The system of Claim 29, wherein said network is the Internet.

33. The system of Claim 25, wherein the means for entering comprises a colorimeter.

34. The system of Claim 25, wherein the means for entering comprises a electronic spectrophotometer.

35. A computer program product, comprising:

a computer storage medium and a computer program code mechanism embedded in the computer storage medium for causing a computer to determine a composition of a dye product for dyeing keratin fibers, the computer program code mechanism comprising:

a first computer code device configured to receive data representative of a target coloration;

a second computer code device configured to perform a search of a database based on said target coloration;

a third computer code device configured to identify at least one dye component of said dye product and a proportion for said at least one dye component; and

a fourth computer code device configured to transmit said at least one dye component and said proportion.

36. The computer program product of Claim 35, wherein:

said third computer code device is configured to identify a plurality of dye components of said dye product and relative proportions for said dye components; and

said fourth computer code device is configured to transmit said plurality of dye components and said relative proportions.

37. The computer program product of Claim 35, wherein:

said third computer code device is configured to select from said database said dye product which provides said target coloration.

38. The computer program product of Claim 35, wherein:

said third computer code device is configured to select from said database said dye product which provides a product coloration that differs from the target coloration by not more than a predetermined value.

39. The computer program product of Claim 38, wherein:

said fourth computer code device is configured to transmit a value representative of a difference between said product coloration and said target coloration.

40. The computer program product of Claim 35, wherein said computer storage medium comprises said database.

41. The computer program product of Claim 40, wherein said database stores identification data for a plurality of dye components.

42. The computer program product of Claim 41, wherein said database stores proportions for each dye component of said plurality of dye components and for a plurality of dye products.

43. The computer program product of Claim 42, wherein said database stores color data for each of said dye products.

44. A process for determining a composition of a dye product for dyeing keratin fibers, comprising the steps of:

receiving data representing a target coloration;

searching a database based on said target coloration;

selecting from said database at least one dye product based on said target coloration;

identifying dye components and proportions of said dye components for said at least one dye product; and

transmitting data representing said dye components and said proportions.

45. The process of Claim 44, wherein said at least one dye product provides the target coloration.

46. The process of Claim 44, wherein said at least one dye product provides a product coloration that differs from the target coloration by not more than a predetermined value.

47. The process of Claim 46, wherein said predetermined value corresponds to a minimum value for which the difference between the product coloration and the target coloration is perceptible by a human eye.

48. The process of Claim 44, wherein said transmitting is performed over a network toward a remote user.

49. The process of Claim 44, wherein said transmitting is performed toward a display device.

50. The process of Claim 49, further comprising displaying with said display device said data representing said dye components and said proportions.